

Addenda and Errata

SPRING 2026

KEY

This document is a record of the changes made to the Spring Calendar 2026 after it was originally published.

The following are the types of changes noted in this document:

- Items marked as addenda (*) were approved after the Calendar was published.
- Items marked as errata (**) are corrections to errors or omissions that were approved prior to the original publication of the Calendar.
- Items that are underlined are additions or edits to previously published curricula.
- Items that are ~~struck through~~ are deletions from previously published curricula.

Admission Information

ENGLISH LANGUAGE PROFICIENCY REQUIREMENTS CATEGORIES

CATEGORY 2

Must meet one of the English Language Requirements or Proficiency Assessments below.

ENGLISH LANGUAGE REQUIREMENTS	
English First Peoples 12; English Studies 12; or Literary Studies 12	70%
English for Academic Purposes (EAP) Level IV	EAP Level IV (LEAP 8)
Langara English Course	A minimum "S" grade in ENGL 1107 or 1110; or a minimum "C" grade in ENGL 1120.
English (Post-Secondary Transfer)	C-
Bachelor's degree or higher	Bachelor's degree or higher from an English speaking country completed at a recognized institution where the language of instruction is English
International Baccalaureate	IB English Language A: Literature (HL or SL): 3; IB English Language A: Language & Literature (HL or SL): 3; or IB English Literature and Performance (SL): 3
Advanced Placement	AP English Literature & Composition: 2; AP English Language & Composition: 2
GCSE O-Level English, GCSE English Language B	C
<u>ILAC Pathway</u> ^(c)	3.3 (Level 16)*

Applicants unable to meet the English Language Requirements must satisfy one of the following English Language Proficiency Assessments:

ENGLISH LANGUAGE PROFICIENCY ASSESSMENTS ^(a,b)	
Langara English Test (LET)	3
IELTS Academic	6.5 (No Band Lower Than 6.0)
Duolingo English Test	110
TOEFL (IBT)	Overall: 88 Writing: 20 Reading: 20 Listening: 20 Speaking: 20
CAEL	Overall: 70 (No Band Lower Than 60)
Pearson Test of English (PTE Academic)	56 (No Individual Skill Score Less Than 55)

CATEGORY 3

Must meet one of the English Language Requirements or Proficiency Assessments below.

ENGLISH LANGUAGE REQUIREMENTS	
English First Peoples 12; English Studies 12; or Literary Studies 12	50%
English for Academic Purposes (EAP) Level IV	EAP Level IV (LEAP 8)
Langara English Course	A minimum "S" grade in ENGL 1107 or 1110; or a minimum "C" grade in ENGL 1120.
English (Post-Secondary Transfer)	D
Bachelor's degree or higher	Bachelor's degree or higher from an English speaking country completed at a recognized institution where the language of instruction is English
International Baccalaureate	IB English Language A: Literature (HL or SL): 2; IB English Language A: Language & Literature (HL or SL): 2; or IB English Literature and Performance (SL): 2
Advanced Placement	AP English Literature & Composition: 2; AP English Language & Composition: 2
GCSE O-Level English, GCSE English Language B	D
Four Years of Study in an English Language Education System	Full-time secondary or post-secondary study in English
<u>ILAC Pathway^(c)</u>	<u>3.3 (Level 16)*</u>

Applicants unable to meet the English Language Requirements must satisfy one of the following English Language Proficiency Assessments:

ENGLISH LANGUAGE PROFICIENCY ASSESSMENTS^(a,b)	
Langara English Test (LET)	2
IELTS Academic	6.5
Duolingo English Test	110
TOEFL (IBT)	Overall: 80 Writing: 20 Reading: 20 Listening: 18 Speaking: 18
CAEL	Overall: 60
Pearson Test of English (PTE Academic)	56

Notes:

- a. Applicants admitted to a Langara College program on the basis of an English Language Proficiency assessment other than the Langara English Test (LET) or an acceptable grade in secondary or post-secondary English may be required to successfully complete ENGL 1107, 1110, or achieve an LET 3 prior to enrolling in ENGL 1100, 1123, 1129, or 1130.
- b. Assessment test scores are valid for two years from the date they were taken.
- c. ILAC Pathway certificates are valid for two years from the date of completion.*

Credentials

CREDENTIALS OFFERED	
Post-Degree Diploma	A minimum of 31 credits with a minimum of 70% of the total credits from upper level courses. Students must have a baccalaureate degree or equivalent for entry and achieve a minimum PGPA of 2.00 to graduate.
Post-Degree Certificate	A minimum of 15 credits to a maximum of 30 credits with a minimum of 70% of the total credits from upper level courses. Students must have a baccalaureate degree or equivalent for entry and achieve a minimum PGPA of 2.00 to graduate.
Baccalaureate Degree	A minimum of 120 credits with at least 60 credits from lower level courses and 42 from upper level courses. Students must meet regular admission requirements for entry and achieve a minimum CGPA of 2.00 to graduate.
Associate Degree	A minimum of 60 credits with further requirements defined by provincial legislation. The Associate Degree framework is available in the BC Transfer Guide. Students must meet regular admission requirements for entry and achieve a minimum CGPA of 2.00 to graduate.
Diploma	A minimum of 60 credits. Students must meet regular admission requirements for entry and achieve a minimum CGPA of 2.00 to graduate.
Certificate	A minimum of 30 credits. Students must meet regular admission requirements for entry and achieve a minimum CGPA of 2.00 to graduate.
Citation	A minimum of 15 credits. Students must meet regular admission requirements for entry and achieve a minimum CGPA of 2.00 to graduate.
<u>Micro-credential</u>	<u>Fewer than 15 credits of course work. Students must meet approved admission requirements and successfully complete required courses to receive recognition of micro-credential completion.*</u>

Credentials Offered at Langara

POST-DEGREE DIPLOMAS

Post-Degree Diploma in Accounting
Post-Degree Diploma in Accounting (Co-operative Education)
Post-Degree Diploma in Applied Planning
Post-Degree Diploma in Business Administration
Post-Degree Diploma in Data Analytics
Post-Degree Diploma in Marketing Management
Post-Degree Diploma in Nursing Practice in Canada
Post-Degree Diploma in Web and Mobile App Design and Development

POST-DEGREE CERTIFICATES

Post-Degree Certificate in Data Analytics

BACHELOR'S DEGREES

Bachelor of Business Administration in Accounting
Bachelor of Business Administration in Accounting
(Co-operative Education)
Bachelor of Business Administration in Business Management
Bachelor of Business Administration in Business Management
(Co-operative Education)
Bachelor of Business Administration in International Business
Management
Bachelor of Business Administration in International Business
Management (Co-operative Education)
Bachelor of Business Administration in Marketing Management
Bachelor of Business Administration in Marketing Management
(Co-operative Education)
Bachelor of Recreation Management
Bachelor of Science in Bioinformatics
Bachelor of Science in Nursing

ASSOCIATE DEGREES

Associate of Arts Degree
Associate of Arts Degree in Aboriginal Studies
Associate of Arts Degree in Asian Studies
Associate of Arts Degree in Canadian Studies
Associate of Arts Degree in Classical Studies
Associate of Arts Degree in Commerce and Business Studies
Associate of Arts Degree in Creative Writing
Associate of Arts Degree in English
Associate of Arts Degree in Environmental Studies
Associate of Arts Degree in Family Studies
Associate of Arts Degree in Geography
Associate of Arts Degree in Health Sciences
Associate of Arts Degree in History
Associate of Arts Degree in Latin American Studies
Associate of Arts Degree in Mathematics
Associate of Arts Degree in Peace and Conflict Studies
Associate of Arts Degree in Philosophy
Associate of Arts Degree in Political Science
Associate of Arts Degree in Psychology
Associate of Arts Degree in Women's Studies
Associate of Science Degree
Associate of Science Degree in Bioinformatics
Associate of Science Degree in Bioinformatics (Co-operative Education)
Associate of Science Degree in Biology
Associate of Science Degree in Biology (Co-operative Education)
Associate of Science Degree in Chemistry
Associate of Science Degree in Computer Science
Associate of Science Degree in Computer Science
(Co-operative Education)
Associate of Science Degree in Environmental Studies
Associate of Science Degree in Food and Nutrition
Associate of Science Degree in Health Sciences
Associate of Science Degree in Mathematics
Associate of Science Degree in Physics

DIPLOMAS

Diploma in Accounting
Diploma in Accounting (Co-operative Education)
Diploma in Applied Science for Engineering
Diploma in Applied Social Sciences and Humanities
Diploma in Arts and Science
Diploma in Arts and Science (Aboriginal Studies)
Diploma in Arts and Science (Asian Studies)
Diploma in Arts and Science (Canadian Studies)
Diploma in Arts and Science (Classical Studies)
Diploma in Arts and Science (Commerce)
Diploma in Arts and Science (Environmental Studies)
Diploma in Arts and Science (Family Studies)
Diploma in Arts and Science (Health Sciences: Arts)
Diploma in Arts and Science (Health Sciences: Science)
Diploma in Arts and Science (Latin American Studies)
Diploma in Arts and Science (Peace and Conflict Studies)
Diploma in Arts and Science (Women's Studies)
Diploma in Bioinformatics
Diploma in Bioinformatics (Co-operative Education)
Diploma in Biology
Diploma in Biology (Co-operative Education)
Diploma in Business Management
Diploma in Business Management (Co-operative Education)
Diploma in Chemistry
Diploma in Computer Studies
Diploma in Computer Studies (Co-operative Education)
Diploma in Criminal Justice
Diploma in Criminology
Diploma in Design Formation
Diploma in Digital Media and Design
Diploma in Early Childhood Education
Diploma in Education Assistant (Co-ordinated)
Diploma in Financial Management
Diploma in Financial Management (Co-operative Education)
Diploma in Financial Services
Diploma in Financial Services (Co-operative Education)
Diploma in Fine Arts
Diploma in Food, Nutrition, and Health Transfer
Diploma in General Education
Diploma in Gerontology
Diploma in Journalism
Diploma in Kinesiology
Diploma in Leisure Studies
Diploma in Library & Information Technology
Diploma in Marketing Management
Diploma in Marketing Management (Co-operative Education)
Diploma in Nutrition and Food Service Management
Diploma in Professional Photography
Diploma in Recreation Leadership
Diploma in Social Service Worker (Co-ordinated)
Diploma in Theatre Arts at Studio 58 (Acting)
Diploma in Theatre Arts at Studio 58 (Theatre Production)

CERTIFICATES

Certificate in Aboriginal Studies Post-Degree
Certificate in Art History
Certificate in Arts and Science (Engineering)
Certificate in Early Childhood Education
Certificate in Education Assistant
Certificate in Film Arts (Acting)
Certificate in Film Arts (Directing)
Certificate in Film Arts (Writing)
Certificate in Internet and Web Technology
Certificate in Journalism
Certificate in Social Service Worker
Certificate in Social Service Worker (Gerontology)

CITATIONS

Citation in Access Langara
Citation in Early Childhood Education:
 Special Education Post-Basic
Citation in Environmental Studies
Citation in Full Stack Web Development
Citation in Foundations in Health Studies
Citation in Infant and Toddler Care and Education
Citation in Latin American Studies

MICRO-CREDENTIALS

Creativity for Everyone
[Data Visualization in Biological Sciences*](#)
Foundations to Innovations in Community Recreation
[Genomics and Transcriptomics Applications*](#)
User Experience Fundamentals

Programs at a Glance

Program Type		Program Name	Credentials Offered											
OPEN ENROLLMENT	CAREER		LIMITED ENROLLMENT (LE)	POST-DEGREE DIPLOMA	POST-DEGREE CERTIFICATE	BACHELOR'S DEGREE	ASSOCIATE OF ARTS DEGREE	ASSOCIATE OF SCIENCE DEGREE	DIPLOMA	CO-OPERATIVE OPTION	CO-ORDINATED DIPLOMA	CERTIFICATE	CITATION	MICRO-CREDENTIAL
•		•	Aboriginal Studies				•		•		•			
	•	•	Access Langara										•	
	•	•	Accounting	•					•	•				
	•	•	Advanced Entry BSN			•								
		•	Applied Planning	•										
		•	Applied Science for Engineering						•					
•			Applied Social Sciences and Humanities						•					
•			Art History									•		
•			Arts (General)				•							
•			Arts and Science (General)						•					
•			Asian Studies				•		•					
•		•	Bioinformatics			•		•	•	•				
•			Biology					•	•	•				
	•	•	Business Administration	•										
	•	•	Business Administration (Accounting)			•				•				
	•	•	Business Administration (Business Management)			•				•				
	•	•	Business Administration (International Business Management)			•				•				
	•	•	Business Administration (Marketing Management)			•				•				
	•	•	Business Management						•	•				
•			Canadian Studies				•		•					
•			Chemistry					•	•					
•			Classical Studies				•		•					
•			Commerce						•					
•			Commerce & Business Studies				•							
•			Computer Science					•		•				
	•	•	Computer Studies						•	•				
•			Creative Writing				•							
•			Creativity for Everyone											•
	•	•	Criminal Justice						•					
	•	•	Criminology						•					
		•	Data Analytics	•	•									
		•	<u>Data Visualization in Biological Sciences*</u>											•
	•	•	Design Formation						•					
	•	•	Digital Media and Design						•					
	•	•	Early Childhood Education						•		•			
	•	•	Early Childhood Education: Special Education Post Basic									•		

Program Type		Program Name	Credentials Offered											
OPEN ENROLLMENT	CAREER	LIMITED ENROLLMENT (LE)		POST-DEGREE DIPLOMA	POST-DEGREE CERTIFICATE	BACHELORS DEGREE	ASSOCIATE OF ARTS DEGREE	ASSOCIATE OF SCIENCE DEGREE	DIPLOMA	CO-OPERATIVE OPTION	CO-ORDINATED DIPLOMA	CERTIFICATE	CITATION	MICRO-CREDENTIAL
	•	•	Education Assistant								•	•		
	•	•	Engineering									•		
•			English				•							
•			Environmental Studies				•	•	•				•	
•			Family Studies				•		•					
	•	•	Film Arts (Acting)									•		
	•	•	Film Arts (Directing)									•		
	•	•	Film Arts (Writing)									•		
	•	•	Financial Management						•	•				
	•	•	Financial Services						•	•				
	•	•	Fine Arts						•					
•			Food and Nutrition					•						
	•	•	Food, Nutrition, and Health Transfer						•					
•			Foundations in Health Studies										•	
		•	Foundations to Innovations in Community Recreation											•
		•	Full Stack Web Development										•	
			General Education						•					
		•	<u>Genomics and Transcriptomics Applications*</u>											•
•			Geography				•							•
	•	•	Gerontology						•					
•			Health Sciences				•	•	•					
•			History				•							
	•	•	Infant and Toddler Care and Education										•	
•			Internet and Web Technology									•		
	•	•	Journalism						•			•		
•			Kinesiology						•					
•			Latin American Studies				•		•				•	
•			Leisure Studies						•					
	•	•	Library & Information Technology (Regular & Flexible Participation)						•					
	•	•	Marketing Management	•					•	•				
•			Mathematics				•	•						
	•	•	Nursing				•							
	•	•	Nursing Practice in Canada	•										
	•		Nutrition and Food Service Management						•					
•			Peace and Conflict Studies				•		•					
•			Philosophy				•							
•			Physics					•						

Program Type		Program Name	Credentials Offered											
OPEN ENROLLMENT	CAREER		LIMITED ENROLLMENT (LE)	POST-DEGREE DIPLOMA	POST-DEGREE CERTIFICATE	BACHELORS DEGREE	ASSOCIATE OF ARTS DEGREE	ASSOCIATE OF SCIENCE DEGREE	DIPLOMA	CO-OPERATIVE OPTION	CO-ORDINATED DIPLOMA	CERTIFICATE	CITATION	MICRO-CREDENTIAL
•							•							
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Data Visualization in Biological Sciences*

Department: Bioinformatics
Division: Applied Sciences

OPTION(S)

- Data Visualization in Biological Sciences

GENERAL INFORMATION

Expertise in data visualization applications in the life sciences can help turn complex biological data into clear, interpretable visuals. Students learn to turn large, heterogeneous biological datasets into decision-ready insights. The program builds three core abilities: (1) preparing and validating data with scripting and command-line workflows to produce tidy, analysis-ready outputs; (2) deploying and scaling pipelines in the cloud using containerized, reproducible practices and distributed processing; and (3) communicating results through clear visualizations and interactive dashboards. Learners tackle authentic cases, apply quality controls and metadata standards, and practise collaboration, versioning, and light automation. Graduates move from raw data to trustworthy, shareable outputs for modern bioinformatics.

ADMISSION REQUIREMENTS

Academic Requirements

Domestic Applicants: Diploma (or equivalent) in Computer Science, Biology, or Life Sciences

International Applicants: Diploma (or equivalent) in Computer Science, Biology, or Life Sciences

English Language Requirements

Category 3

Applicant Notes

Please note, this program will include some coding; we recommend that students have some proficiency in Python or a similar programming language prior to starting the program.

DATA VISUALIZATION IN BIOLOGICAL SCIENCES

CURRICULUM

TOTAL PROGRAM CREDITS: 4

Course No.	Credits
All of	
BINF 3005	1
BINF 3010	1
BINF 3015	1
BINF 3020	1

Genomics and Transcriptomics Applications*

Department: Bioinformatics
Division: Applied Sciences

OPTION(S)

- Genomics and Transcriptomics Applications

GENERAL INFORMATION

Advancements in high-throughput sequencing technologies create a growing demand for professionals skilled in analyzing and interpreting genomic and transcriptomic data. Students examine core principles of genome-scale data analysis and apply them to real-world scenarios. They explore strategies for working with large nucleic datasets across diverse applications, developing critical and creative thinking to address challenges in modern bioinformatics.

ADMISSION REQUIREMENTS

Academic Requirements

Domestic Applicants: A bachelor's degree (or equivalent) in the field of high throughput data analysis in Biology, Ecology, Forestry, Agriculture, or Life Sciences.

International Applicants: A bachelor's degree (or equivalent) in the field of high throughput data analysis in Biology, Ecology, Forestry, Agriculture, or Life Sciences.

English Language Requirements

Category 3

Additional Requirements

In place of a bachelor's degree, applicants may submit a resumé showing a minimum of 1 year of relevant industry experience in the field of high throughput data analysis in Biology, Ecology, Forestry, Agriculture, or Life Sciences.

Applicant Notes

If you feel that you have the skills or experience to succeed in the program, but do not meet the requirements as listed, please contact bioinformatics@langara.ca.

GENOMICS AND TRANSCRIPTOMICS APPLICATIONS

CURRICULUM

TOTAL PROGRAM CREDITS: 4

Course No.	Credits
All of	
BINF 4005	1
BINF 4010	1
BINF 4015	1
BINF 4020	1

CITATION IN INFANT AND TODDLER CARE AND EDUCATION

The Citation in Infant and Toddler Care and Education program is a threesemester online program, with a 200 hour in-person practicum. In this program, students learn to respond meaningfully to the unique and diverse developmental needs of children under the age of three in interaction, behaviour guidance, curriculum, and policy practices. They explore ways to create developmentally appropriate and inclusive environments and curriculum that respond to the specific needs and interests of infants and toddlers, and practice strategies that ensure physical and psychological safety for children in accordance with provincial legislation and agency policies.

This citation program consists of 6 courses, 18 credits in total, and meets the curriculum requirements necessary to become certified infant toddler early childhood educators with the ECE Registry in British Columbia. The program is open to any applicant who has completed an ECE Certificate or Diploma from any post-secondary institution in BC.

Please refer to the program application dates on the Application Information page.

CURRICULUM

TOTAL CREDITS: 18

Course No.	Credits
All of	
ECED 1214	3
ECED 1310	3
ECED 1315	3
ECED 1325	3
ECED 1329	3
PSYC 2324	3

ADMISSION REQUIREMENTS

Please refer to the information regarding general requirements for admission and application to Langara College programs.

Academic Requirements

Domestic Applicants: Certificate in Early Childhood Education, Diploma in Early Childhood Education, or ECE Certificate to Practice

International Applicants: Certificate in Early Childhood Education, Diploma in Early Childhood Education, or ECE Certificate to Practice

English Language Requirement

Category 3

Applicant Notes

1. Admission to a program does not guarantee registration into required courses.
2. For information regarding regulatory requirements for registration as an Early Childhood Educator in BC, please see the Early Childhood Information webpage at www.mcf.gov.bc.ca/childcare/ece or call 1.888.338.6622.

BINF 3005 (1 CREDIT) (6:0:6)***Data Preparation with Python & Bash**

Heterogeneous data inputs from instruments, assays, and public repositories require skillful integration to create tidy, analysis-ready datasets. Students learn to use Python and the Linux shell to extract, transform, merge, and clean data, converting between domain formats and general formats such as CSV and JSON, with documented schemas and quality checks for downstream visualization and analytics. Working in a command-line environment, they build reproducible workflows with standard utilities and organize projects for traceability. Students also manage scheduling and data integrity in incremental updates (handling late-arriving records, duplicates, and versioned refreshes), load prepared datasets into visualization tools, and create simple web endpoints to share transformed datasets for defined analytical tasks.

Registration in this course is restricted to students admitted to the Data Visualization in Biological Sciences program.

BINF 3010 (1 CREDIT) (6:0:6)***Cloud Bio Pipelines**

Building and operating scalable, cost-efficient pipelines is an essential skill for practitioners in modern bioinformatics. Students package workflows in containers and deploy them on managed cloud services with object storage and elastic compute. In a command-line environment, students accelerate input and output through columnar data layouts, partitioning, and predicate filtering; apply appropriate access controls and private networking; and automate builds, execution, and monitoring with logs and metrics. Working end to end on real datasets, they publish performance-tuned outputs ready for downstream analysis and visualization.

Registration in this course is restricted to students admitted to the Data Visualization in Biological Sciences program.

Prerequisite(s): An "S" grade in BINF 3005.

BINF 3015 (1 CREDIT) (6:0:6)***Biological Data Visualization**

The efficient preparation of biological datasets for visualization is necessary to create clear static and interactive charts for scientific communication. Students develop competencies in chart selection, tidy data practices, appropriate use of color and scale, and accessible design. Learners construct heatmaps for high-dimensional data, network and interaction graphs, time-series and comparative plots, and assemble interactive dashboards with effective annotations and filters—building a reproducible, audience-appropriate visualization skill set for research and decision support.

Registration in this course is restricted to students admitted to the Data Visualization in Biological Sciences program.

Prerequisite(s): An "S" grade in BINF 3010.

BINF 3020 (1 CREDIT) (6:0:6)***Visualizing Omics**

Visualization of complex omics datasets requires innovative, effective approaches informed by partners in the life sciences bioeconomy. Students learn to prepare sequence and annotation data, create advanced heatmaps, volcano and MA plots, and overlays of dimensionality-reduction methods such as principal component analysis and uniform manifold approximation and projection. They construct interaction and co-expression networks, apply community detection and layout principles, and produce clear, publication-ready figures and interactive artifacts. Emphasis is placed on reproducible workflows, color-safe design, rigorous labeling and captions, and alignment to real biological questions.

Registration in this course is restricted to students admitted to the Data Visualization in Biological Sciences program.

Prerequisite(s): An "S" grade in BINF 3015.

BINF 4005 (1 CREDIT) (4:0:8)***Omics Workflow Essentials**

Advancements in high-throughput sequencing technologies have rapidly transformed the life sciences, creating a growing demand for professionals skilled in analyzing and interpreting genomic and transcriptomic data. Students explore essential computational tools for bioinformatics and apply them to real-world data analysis. They use R and RStudio to analyze genomics data, manage collaborative coding through Git and GitHub, and run bioinformatics software with Bash, conda, and Docker. Students also connect to Linux-based, high-performance computing systems, gaining practical skills for omics research and data-driven discovery.

Registration in this course is restricted to students admitted to the Genomics and Transcriptomics Applications program.

BINF 4010 (1 CREDIT) (6:0:6)***Genomics Assembly Foundations**

Advancements in high-throughput sequencing technologies create a growing demand for professionals skilled in analyzing and interpreting genomic data. Students learn the essential steps for genome assembly while respecting OCAP principles and Indigenous data sovereignty. They perform quality control (QC/QA) of sequencing data using tools such as Sequali, Filtlong, and Shortreads, assemble genomes, and assess completeness with QUAST and BUSCO. Students annotate assemblies, identify reference genomes, call variants, and apply OCAP guidelines throughout the workflow to ensure ethical handling of Indigenous genomic data.

Registration in this course is restricted to students admitted to the Genomics and Transcriptomics Applications program.

Prerequisite(s): An "S" grade in BINF 4005.

BINF 4015 (1 CREDIT) (6:0:6)*

Genomic Data Integration

Advancements in high-throughput sequencing technologies have created a growing demand for professionals skilled in analyzing and interpreting genomic data. Students focus on advanced genomic data analysis and interpretation using R and Bioconductor. They import and visualize genomic data, summarize annotation information, identify variants in coding regions, and analyze their biological implications. Students explore functional genomics, pathway analysis, comparative genomics, and apply statistical methods for variant interpretation. They also generate clear, comprehensive reports to communicate findings effectively.

Registration in this course is restricted to students admitted to the Genomics and Transcriptomics Applications program.

Prerequisite(s): An "S" grade in BINF 4010.

BINF 4020 (1 CREDIT) (6:0:6)*

Intro to Transcriptomics

Advancements in high-throughput sequencing technologies create a growing demand for professionals skilled in analyzing and interpreting transcriptomics data. Students explore the principles and tools of transcriptomics with a focus on RNA sequencing (RNA-seq) data analysis. They perform quality control, align reads, quantify gene expression, and conduct differential expression analysis. Students apply statistical methods, interpret biological significance, and create reproducible workflows using R and Quarto.

Registration in this course is restricted to students admitted to the Genomics and Transcriptomics Applications program.

Prerequisite(s): An "S" grade in BINF 4015.